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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,413	09/24/2001	Keizo Hirose	33082M102	5643
7590 03/24/2004				
Smith, Gambrell & Russell, LLP Beveridge, DeGrandi, Weilacher & Young Intellectual Property group 1850 M Street, N.W. (Suite 800), Washington, DC 20036		EXAMINER BALSIS, SHAY L		
		ART UNIT 1744		PAPER NUMBER

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/960,413

Applicant(s)

HIROSE ET AL.

Examiner

Shay L Balsis

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7,8,10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,8,10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5, 7-8 and 13-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Vail et al. (USPN 6464796).

Vail teaches a substrate cleaning tool for cleaning a substrate comprising a plurality of water permeable brush members (26, 28, col. 8, lines 38-40). Each brush member has a hollow channel (40A) with a number of channels (344) extending from the hollow channel. The cleaning tool is capable of rotating against the substrate. The brush members are mounted on a body for holding the brush member wherein the body has a cleaning liquid passage for supplying liquid to the brush members (figure 5). There is a scrub arm for holding the substrate cleaning tool (figure 5) and a holder (32, 34) for holding the substrate to be cleaning by the tool. The scrub arm has a drive mechanism for rotating the tool and for moving the tool up and down (col. 4, lines 12-67). There is further a nozzle (56-59) for ejecting cleaning liquid.

With regards to claim 20, Vail teaches a substrate cleaning tool having a plurality of water impermeable brush members (340). The brush members have a hollow channel (40A) and a plurality of channels (344) extending from the hollow channel.

3. Claims 1, 3, 5, 7-8, 10 and 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirose et al. (USPN 6554010).

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The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Hirose teaches a substrate cleaning tool (figure 20 with figure 33) for cleaning a substrate comprising a plurality of water permeable brush members (74). The brush member can have elements that are long and short and may come in many various forms (col. 16, lines 27-53). Each brush member has a hollow channel (67) with a number of channels (116) extending from the hollow channel. The cleaning tool is capable of rotating against the substrate. The brush members are mounted on a body (24) for holding the brush member wherein the body has a cleaning liquid passage for supplying liquid to the brush members (figure 3). There is a scrub arm for holding the substrate cleaning tool (26) and a holder (22) for holding the substrate to be cleaned by the tool. The scrub arm has a drive mechanism for rotating the tool and for moving the tool up and down (col. 2, lines 44-58). There is further a nozzle (82) for ejecting cleaning liquid.

4. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Rohm (USPN 4323085).

Rohm teaches a cleaning tool comprising brush members (3) in a bundle. Each brush member has a hollow channel with a number of channels extending from the hollow channel (figure 4). The brush members are made of a water-repellent material.

5. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Belan (USPN 4958596).

Belan teaches a cleaning tool comprising brush members (36) in a bundle. Each brush member has a hollow channel (39) with a number of channels extending from the hollow channel (49). The brush members are made of a water-repellent material.

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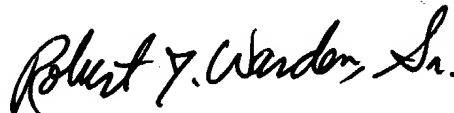
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Slb  
3/15/04



**ROBERT J. WARDEN, SR.  
SUPERVISORY PATENT EXAMINER  
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